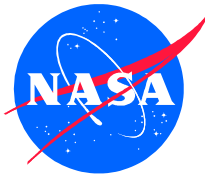


Detecting the Onset of Fire in an Aircraft by Employing Correlation Spectroscopy *Intelligent Optical Systems (IOS)* Torrance, CA



INNOVATION

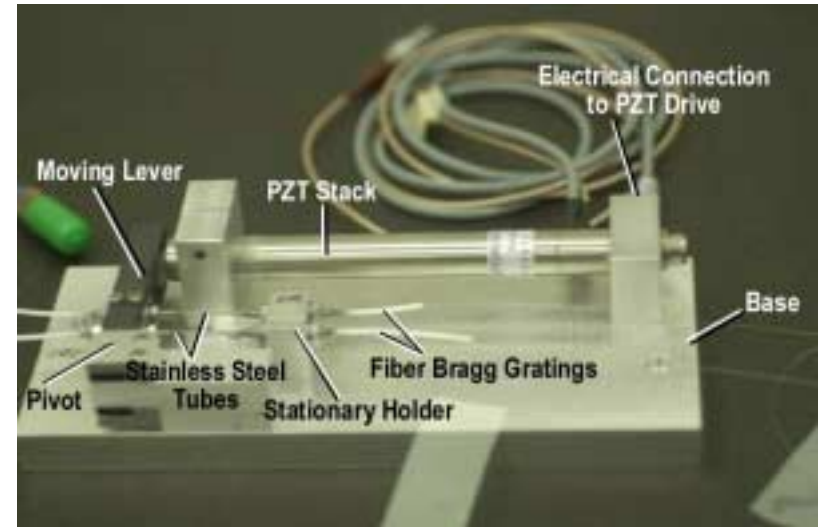
Detecting the onset of fire using a fiber laser operating in the near infrared, and a modulation system

ACCOMPLISHMENTS

- ◆ Designed and fabricated a bright light source – a multi-line fiber laser using Bragg Grating filters
- ◆ Developed modulators for the Bragg gratings that enhanced the sensitivity of the fire sensor
- ◆ Detected carbon monoxide, an important fire marker, using the laser-based test setup

COMMERCIALIZATION

- ◆ Have attracted \$140,000 of commercial funding
- ◆ Forming a spinoff company, Optech Ventures, LLC, to commercialize this and other IOS technologies
- ◆ Identifying target markets and potential partners
- ◆ Employing three full-time staff members to develop and commercialize trace gas sensing technology



***Modulator Developed as Part of the
IOS Fire Onset Detection System***

GOVERNMENT/SCIENCE APPLICATIONS

- ◆ Can be used as an early warning of fire in the International Space Station, aerospace vehicles, airplanes, public and federal buildings, and subway stations
- ◆ Other applications are protection of semiconductor fabrication facilities, power plants, industrial plants, naval assets, hospitals, schools, warehouses, chemical plants, and schools